

WEST Search History

DATE: Tuesday, January 11, 2005

Hide?	<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
<input type="checkbox"/>	L14	L7 and L13	489
<input type="checkbox"/>	L13	para thyroid hormone or vitamin d metabolite or prostaglandins or oxygen free radicals	15774
<input type="checkbox"/>	L12	L7 and L11	644
<input type="checkbox"/>	L11	colony stimulating factors or transforming growth factor or tumor necrosis factor	16071
<input type="checkbox"/>	L10	L7 and L8	326
<i>DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>			
<input type="checkbox"/>	L9	L7 and L8	1443
<input type="checkbox"/>	L8	interleukin (1 or 3 or 6 or 11)	17263
<input type="checkbox"/>	L7	L1 and L6	10266
<input type="checkbox"/>	L6	active agent	119313
<input type="checkbox"/>	L5	L1 with L3	3
<input type="checkbox"/>	L4	L1 and L3	357
<input type="checkbox"/>	L3	osteoclast activity	702
<input type="checkbox"/>	L2	agent near4 stimulates osteoclast activity	0
<input type="checkbox"/>	L1	calcium phosphate	60199

END OF SEARCH HISTORY

WEST Search History

DATE: Tuesday, January 11, 2005

Hide?	<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>
	<i>DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>		
<input type="checkbox"/>	L18	(dicalcium phosphate dihydrate and 6132463.pn.)	1
<input type="checkbox"/>	L17	(dicalcium phosphate dihydrate and 5336264.pn.)	0
<input type="checkbox"/>	L16	(5336264.pn.)	2
<input type="checkbox"/>	L15	(dicalcium phosphate dihydrate and RE33221.pn.)	1
<input type="checkbox"/>	L14	(RE33221.pn.)	1
<input type="checkbox"/>	L13	(dicalcium phosphate dihydrate and dicalcium phosphate dihydrate and 4880610.pn.)	0
<input type="checkbox"/>	L12	(5053212.pn.)	2
<input type="checkbox"/>	L11	(dicalcium phosphate dihydrate and 4880610.pn.)	0
<input type="checkbox"/>	L10	(4880610.pn.)	1
<input type="checkbox"/>	L9	(calcium phosphate and dicalcium phosphate dihydrate)	607
<input type="checkbox"/>	L8	(calcium phosphate and dicalcium phosphate dihydrate and calcium phosphate promoter)	6
<input type="checkbox"/>	L7	(calcium phosphate and dicalcium phosphate dihydrate)	607
<input type="checkbox"/>	L6	(interleukin (1 or 6 or 11) or colony stimulatinf factor, transforming growth factor or tumor necrosis factor or para-thyroid hormone or vitamin D metabolites or prostaglandins)	56035
<input type="checkbox"/>	L5	(calcium phosphate ceramics)	669
<input type="checkbox"/>	L4	(calcium phosphate and bioresorbable implant)	13
<input type="checkbox"/>	L3	(bioresorbable implant)	52
<input type="checkbox"/>	L2	(calcium phosphate and implant)	8986
<input type="checkbox"/>	L1	5336264.pn.	2

END OF SEARCH HISTORY

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(FILE 'HOME' ENTERED AT 10:09:03 ON 11 JAN 2005)

FILE 'STNGUIDE' ENTERED AT 10:09:11 ON 11 JAN 2005

FILE 'HOME' ENTERED AT 10:09:16 ON 11 JAN 2005

FILE 'MEDLINE, KOSMET' ENTERED AT 10:09:28 ON 11 JAN 2005

L1	6206 S CALCIUM PHOSPHATE
L2	30257 S TRANSFORMING GROWTH FACTOR
L3	63576 S TUMOR NECROSIS FACTOR
L4	3 S PARA THYROID HORMONE
L5	1 S PHARMACEUTICALLY ACTIVE AGENT
L6	1567 S ACTIVE AGENT
L7	90892 S L2 OR L3
L8	49 S L1 AND L7
L9	0 S L8 AND L6
L10	17 S BIORESORBABLE IMPLANTS
L11	0 S L1 AND L10
L12	360 S L1 AND IMPLANT

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NEWS 10 DEC 17 COMPUAB reloaded; updating to resume; current-awareness
alerts (SDIs) affected
NEWS 11 DEC 17 SOLIDSTATE reloaded; updating to resume; current-awareness
alerts (SDIs) affected
NEWS 12 DEC 17 CERAB reloaded; updating to resume; current-awareness
alerts (SDIs) affected
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NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT
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AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'HOME' ENTERED AT 10:09:16 ON 11 JAN 2005

=> file medline kosmet
COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
0.21	0.48

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 10:09:28 ON 11 JAN 2005

FILE 'KOSMET' ENTERED AT 10:09:28 ON 11 JAN 2005

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=> s calcium phosphate
L1 6206 CALCIUM PHOSPHATE

=> s transforming growth factor
L2 30257 TRANSFORMING GROWTH FACTOR

=> s tumor necrosis factor
L3 63576 TUMOR NECROSIS FACTOR

=> s para thyroid hormone
L4 3 PARA THYROID HORMONE

=> s pharmaceutically active agent
L5 1 PHARMACEUTICALLY ACTIVE AGENT

=> s active agent
L6 1567 ACTIVE AGENT

=> s l2 or l3
L7 90892 L2 OR L3

=> s l1 and l7
L8 49 L1 AND L7

=> s l8 and l6
L9 0 L8 AND L6

=> s bioresorbable implants
L10 17 BIORESORBABLE IMPLANTS

=> d l10 1-17 ibib abs

L10 ANSWER 1 OF 17 MEDLINE on STN

ACCESSION NUMBER: 2004298338 MEDLINE

DOCUMENT NUMBER: PubMed ID: 15198497

TITLE: Lumbar interbody fusion after treatment with recombinant human bone morphogenetic protein-2 added to poly(L-lactide-co-D,L-lactide) **bioresorbable implants**.

AUTHOR: Lanman Todd H; Hopkins Thomas J

CORPORATE SOURCE: DBA California Spine Group, and Century City Hospital, Los Angeles, California, USA.. toddlanman@aol.com

SOURCE: Neurosurg Focus, (2004 Mar 15) 16 (3) E9.
Journal code: 100896471. ISSN: 1092-0684.

PUB. COUNTRY: United States

DOCUMENT TYPE: (CASE REPORTS)
(CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200408

ENTRY DATE: Entered STN: 20040617
Last Updated on STN: 20040827
Entered Medline: 20040826

AB Object. To evaluate the effectiveness of recombinant human bone morphogenetic protein-2 (rhBMP-2) combined with a bioresorbable implant, the authors conducted a prospective study of 43 patients with degenerative lumbar disc disease who underwent transforaminal lumbar interbody fusion. Methods. The authors used Infuse bone graft, which consisted of rhBMP-2 applied to an absorbable collagen sponge and contained within a HYDROSORB Telamon bioresorbable implant to perform the fusion. Multilevel fusions were performed in 30% of the 43 patients, for a total of 57 levels. At 6 months postoperatively, x-ray films and computerized tomography (CT) scans demonstrated solid fusion in 98% of 41 patients. Improvement from the baseline Oswestry Disability Rating was demonstrated at 6 months postoperatively in 68% of the patients, based on the Oswestry Disability Questionnaire. At 12 months all 11 patients in whom CT scans were obtained showed complete bridging of bone; there were no device-related complications. Conclusions. Results in this series provide evidence of the feasibility of using HYDROSORB Telamon bioresorbable spacers in combination with Infuse bone graft for lumbar spine fusion.

L10 ANSWER 2 OF 17 MEDLINE on STN
ACCESSION NUMBER: 2002641694 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12401030
TITLE: Applications of a resorbable interbody spacer via a posterior lumbar interbody fusion technique.
AUTHOR: Alexander Joseph T; Branch Charles L Jr; Subach Brian R; Haid Regis W Jr
CORPORATE SOURCE: Wake Forest University School of Medicine, Winston-Salem, NC, USA.
SOURCE: Orthopedics, (2002 Oct) 25 (10 Suppl) s1185-9; discussion s1189. Ref: 37
Journal code: 7806107. ISSN: 0147-7447.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 20021029
Last Updated on STN: 20021211
Entered Medline: 20040615

AB Polyhydroxyacids are a promising class of bioresorbable materials with potential applications in spinal surgery. One such polymer, MacroPore (MacroPore Biosurgery Inc, San Diego, Calif), offers a balance of strength, predictable degradation, lack of stimulus of foreign body reaction, and biocompatibility with neural tissue. MacroPore can be formed into an array of shapes and can be manufactured, sterilized, and stored with conventional techniques. Limited clinical experience has been gained with **bioresorbable implants** that are used as load-sharing devices in a posterior lumbar interbody fusion construct.

L10 ANSWER 3 OF 17 MEDLINE on STN
ACCESSION NUMBER: 2002406786 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12161324
TITLE: The potential for **bioresorbable implants** in paediatric fractures.
AUTHOR: Slongo Theddy F
CORPORATE SOURCE: Department of Pediatric Surgery, University Children's Hospital, Bern, Switzerland.
SOURCE: Injury, (2002 Aug) 33 Suppl 2 B84-7. Ref: 6
Journal code: 0226040. ISSN: 0020-1383.
PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200302
ENTRY DATE: Entered STN: 20020806
Last Updated on STN: 20030204
Entered Medline: 20030203

L10 ANSWER 4 OF 17 MEDLINE on STN
ACCESSION NUMBER: 2002406780 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12161314
TITLE: **Bioresorbable implants** in
maxillo-facial osteosynthesis: experimental and clinical
experience.
AUTHOR: Gutwald R; Schon R; Gellrich N C; Schramm A; Schmelzeisen
R; Pistner H
CORPORATE SOURCE: Department of Oral and Maxillo-Facial Surgery, University
of Freiburg, Freiburg, Germany.. gutwald@zmk2.ukl.uni-
freiburg.de
SOURCE: Injury, (2002 Aug) 33 Suppl 2 B4-16.
Journal code: 0226040. ISSN: 0020-1383.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200302
ENTRY DATE: Entered STN: 20020806
Last Updated on STN: 20030204
Entered Medline: 20030203

L10 ANSWER 5 OF 17 MEDLINE on STN
ACCESSION NUMBER: 2001426785 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11466654
TITLE: Mechanical testing of **bioresorbable**
implants for use in metacarpal fracture fixation.
AUTHOR: Bozic K J; Perez L E; Wilson D R; Fitzgibbons P G; Jupiter
J B
CORPORATE SOURCE: Orthopaedic Biomechanics Laboratory, Beth Israel Deaconess
Medical Center, Boston, MA, USA.
SOURCE: Journal of hand surgery, (2001 Jul) 26 (4) 755-61.
Journal code: 7609631. ISSN: 0363-5023.
PUB. COUNTRY: United States
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200109
ENTRY DATE: Entered STN: 20011001
Last Updated on STN: 20011001
Entered Medline: 20010927

AB The purpose of this study was to evaluate the mechanical properties of a
bioresorbable plate and screw system that was developed for the treatment
of unstable metacarpal fractures and to compare the strength and stiffness
of this system with those of conventional titanium plates and screws.
Using a 4-point bending test, we measured the strength and stiffness of
these implants over a 12-week period of in vitro degradation. Our data
suggest that these implants provide stable bending strength and stiffness
for 8 weeks and gradually lose their strength over a period of 12 weeks.
Further research is necessary to determine whether this level of fixation
is adequate to stabilize unstable metacarpal fractures.

L10 ANSWER 6 OF 17 MEDLINE on STN

ACCESSION NUMBER: 2000260173 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10800379
 TITLE: [Biodegradable implants in fracture fixation: state of the art].
 Resorbierbare Implantate fur Frakturfixierungen. Aktueller Stand.
 AUTHOR: van der Elst M; Patka P; van der Werken C
 CORPORATE SOURCE: Reinier de Graaf Group Delft, Free University Hospital, Amsterdam, Niederlande.
 SOURCE: Der Unfallchirurg, (2000 Mar) 103 (3) 178-82. Ref: 37
 Journal code: 8502736. ISSN: 0177-5537.
 PUB. COUNTRY: GERMANY: Germany, Federal Republic of
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 (REVIEW, TUTORIAL)
 LANGUAGE: German
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200005
 ENTRY DATE: Entered STN: 20000606
 Last Updated on STN: 20000606
 Entered Medline: 20000525

AB Operative fracture repair in trauma surgery is currently performed using metal implants. These metal implants often are removed during a second, retrieval operation. Biodegradable fracture fixation devices have been used clinically since the late seventies. Most **bioresorbable implants** are manufactured from polymers. The polylactides, polyglycolides and co-polymers slowly degrade into small components that are excreted from the human body via natural pathways and removal operations after fracture surgery are not necessary. Due to the limited mechanical properties, the polymer screws and pins are mostly used in the treatment of non weight-bearing simple fractures of the ankle, elbow, hand and foot. In view of the progressing technical developments, new materials will be developed and tested for clinical use in the coming decades.

L10 ANSWER 7 OF 17 MEDLINE on STN
 ACCESSION NUMBER: 1999334480 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10398970
 TITLE: In vivo time course studies of the tissue responses to resorbable polylactic acid implants by means of MRI.
 AUTHOR: Stroman P W; Dorvil J C; Marois Y; Poddevin N; Guidoin R
 CORPORATE SOURCE: Quebec Biomaterials Institute, Canada.
 SOURCE: Magnetic resonance in medicine : official journal of the Society of Magnetic Resonance in Medicine / Society of Magnetic Resonance in Medicine, (1999 Jul) 42 (1) 210-4.
 Journal code: 8505245. ISSN: 0740-3194.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199909
 ENTRY DATE: Entered STN: 19991005
 Last Updated on STN: 19991005
 Entered Medline: 19990917

AB Magnetic resonance (MR) imaging and relaxation time measurements of **bioresorbable implants** made of polylactic acid (PLA), as well as the surrounding tissues, were carried out over a period of 6 months to monitor the implant state and the body's responses, and to determine how these processes are reflected in MR data. Twelve rabbits each received two subcutaneous PLA implants (45 x 10 x 2 mm). Changes in tissue relaxation rates demonstrated inflammation and tissue healing time courses but were not simply linear functions of the tissue water content and so provide new insight into MR characterization of inflammatory processes.

L10 ANSWER 8 OF 17 MEDLINE on STN
 ACCESSION NUMBER: 1999320793 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10394870
 TITLE: MR imaging in biofix-osteosynthesis.
 AUTHOR: Lohman M; Partio E K; Vehmas T; Kivisaari A; Kivisaari L
 CORPORATE SOURCE: Department of Radiology, Helsinki University Hospital, Finland.
 SOURCE: Acta radiologica (Stockholm, Sweden : 1987), (1999 Jul) 40 (4) 415-7.
 Journal code: 8706123. ISSN: 0284-1851.
 PUB. COUNTRY: Denmark
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199907
 ENTRY DATE: Entered STN: 19990730
 Last Updated on STN: 19990730
 Entered Medline: 19990720

AB PURPOSE: Osteosynthesis by means of **bioresorbable implants**, mostly of self-reinforced poly-L-lactide (SR-PLLA), has been used in humans for about 10 years. The aim of this study was to examine the controversy between histological studies confirming fragmentation of the biomaterial and radiological studies showing no breaking of the material. MATERIAL AND METHODS: Six patients with displaced malleolar fractures operatively treated with biodegradable SR-PLLA screws underwent MR examinations at 1.5 T, immediately postoperatively and after one to two years. RESULTS: The biodegradable osteosynthetic screws were clearly seen on all MR images. Of 12 screws, 6 were broken at the final examination (5 syndesmotic transfixation screws and 1 screw through the growth cartilage). CONCLUSION: The breaking of a biodegradable osteosynthesis is possible to document on MR images.

L10 ANSWER 9 OF 17 MEDLINE on STN
 ACCESSION NUMBER: 97289074 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9143997
 TITLE: **Bioresorbable implants**: applications in orthopaedic surgery.
 AUTHOR: Blasier R D; Bucholz R; Cole W; Johnson L L; Makela E A
 CORPORATE SOURCE: Division of Pediatric Orthopaedics, Arkansas Children's Hospital, University of Arkansas for Medical Sciences, Little Rock, USA.
 SOURCE: Instructional course lectures, (1997) 46 531-46. Ref: 64
 Journal code: 7507149. ISSN: 0065-6895.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 (REVIEW, TUTORIAL)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199707
 ENTRY DATE: Entered STN: 19970716
 Last Updated on STN: 19980206
 Entered Medline: 19970701

AB There are several new and potential uses for absorbable implants. Some will provide exciting options in the future. Ongoing animal and clinical studies will help focus future areas of development.

L10 ANSWER 10 OF 17 MEDLINE on STN
 ACCESSION NUMBER: 96427686 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 8831002
 TITLE: **Bioresorbable implants**--practical considerations.
 AUTHOR: Pietrzak W S; Sarver D; Verstynen M

CORPORATE SOURCE: Biomet, Inc., Airport Industrial Park, Warsaw, IN 46580, USA.
SOURCE: Bone, (1996 Jul) 19 (1 Suppl) 109S-119S.
Journal code: 8504048. ISSN: 8756-3282.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199612
ENTRY DATE: Entered STN: 19970128
Last Updated on STN: 19980206
Entered Medline: 19961220

AB Traditional metal implants, primarily used for internal fixation, have been used by the orthopedic surgeon for years. Decades of development have produced such devices for almost every conceivable need. Despite their widespread use, a relatively consistent set of problems or issues have been identified. These include the potential for long term migration, breakage, stress shielding, reaction to the material, interference with standard imaging techniques, and growth restriction in young patients. A number of bioresorbable polymer devices have recently become available to create a viable alternative for some indications. As expected with an evolving technology, solving one set of problems has engendered another. One of the most limiting aspects of bioresorbable polymers is their inherently lower strength compared to metals. Although more of an issue with some materials and applications than others, significant tissue reactions have been observed in some cases as well. This paper discusses the field of synthetic bioresorbable polymers in general, but with specific reference to those materials and devices that can be used in place of metal implants for internal fixation.

L10 ANSWER 11 OF 17 MEDLINE on STN
ACCESSION NUMBER: 96348727 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8718977
TITLE: Postoperative irradiation treatment and
bioresorbable implants in orthopaedic
surgery: an experimental in vitro study.
AUTHOR: Hofmann G O; Wagner F D; Keller A; Feist H
CORPORATE SOURCE: BG-Unfallklinik Murnau, Germany.
SOURCE: Biomaterials, (1996 Jun) 17 (11) 1149-53.
Journal code: 8100316. ISSN: 0142-9612.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 19961106
Last Updated on STN: 19980206
Entered Medline: 19961023

AB The influence of applied radiation on the degradation of a polyglycolide (PGA) test specimen was studied in vitro. There was no significant difference in the time-dependent degradation behaviour between the irradiated test specimen and controls. Mandatory irradiation of an operation site following surgery therefore does not contradict the employment of **bioresorbable implants** in orthopaedic surgery.

L10 ANSWER 12 OF 17 MEDLINE on STN
ACCESSION NUMBER: 94296996 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8025090
TITLE: Bioresorbable pins and screws in paediatric traumatology.
AUTHOR: Benz G; Kallieris D; Seebock T; McIntosh A; Daum R
CORPORATE SOURCE: Kinderchirurgische Abteilung, Universitat Heidelberg, Germany.
SOURCE: European journal of pediatric surgery : official journal of

Austrian Association of Pediatric Surgery ... [et al] =
Zeitschrift fur Kinderchirurgie, (1994 Apr) 4 (2) 103-7.
Journal code: 9105263. ISSN: 0939-7248.

PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199408
ENTRY DATE: Entered STN: 19940818
Last Updated on STN: 19940818
Entered Medline: 19940808

AB **Bioresorbable implants** are suited to the treatment of joint and shaft fractures in children. These conclusions were drawn from clinical and experimental investigations at the University of Heidelberg. Since 1990 13 fractures, including 5 medial malleolus fractures, 2 retropatella flake fractures, 1 metacarpal fracture, 2 lateral condyle, 2 epicondyle fractures and a secondary dislocated forearm fracture were treated with BIOFIX pins. 11 of these cases were without complications. There was one case of infection, and due to material failure the stability was insufficient in one case. In a post-mortem study torsional fractures were produced in femora of children between 5 and 15 months. The fractures were then fixed with one resorbable screw and put under torsional loading until the bone refractured. The post-fixation force (torsional) amounted to 77% of the original fracture force, and the degree of rotation at fracture was post-fixation 84% of the original. The stability of bioresorbable screws in the treatment of femoral spiral fractures in children can therefore be confirmed.

L10 ANSWER 13 OF 17 MEDLINE on STN

ACCESSION NUMBER: 94247231 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8189986

TITLE: Bioresorbable screws for facial bone reconstruction: a pilot study in rabbits.

AUTHOR: Kellman R M; Huckins S C; King J; Humphrey D; Marentette L; Osborn D C

CORPORATE SOURCE: Department of Otolaryngology, SUNY Health Science Center, Syracuse 13210.

SOURCE: Laryngoscope, (1994 May) 104 (5 Pt 1) 556-61.
Journal code: 8607378. ISSN: 0023-852X.

PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199406
ENTRY DATE: Entered STN: 19940629
Last Updated on STN: 19980206
Entered Medline: 19940621

AB Rigid fixation using plates and screws is an accepted mode of repair for facial fractures and osteotomies. To avoid potential complications associated with metal implants, **bioresorbable implants** are being developed. A study was performed to assess the strength over time of three bioresorbable polymeric screws for facial bone reconstruction. Screws of each polymer type and a titanium control were implanted in the periorbital bones of eight rabbits. Rabbits were euthanized at various time intervals. Pull-out testing and histological analysis were performed. Results showed varying degrees of resorption and screw pull-out strength dependent on time and polymer type, and no change in the control. This study demonstrates that bioresorbable screws can be used in bone, although the optimal choices for human implantation are yet to be determined.

L10 ANSWER 14 OF 17 MEDLINE on STN

ACCESSION NUMBER: 92005462 MEDLINE

DOCUMENT NUMBER: PubMed ID: 1913658

TITLE: Experimental studies and preliminary clinical trial of
vinorelbine-loaded polymeric **bioresorbable**
implants for the local treatment of solid tumors.

AUTHOR: Fournier C; Hecquet B; Bouffard P; Vert M; Caty A; Vilain M
O; Vanseymortier L; Merle S; Krikorian A; Lefebvre J L; +

CORPORATE SOURCE: Laboratoire de Pharmacodynamie Clinique, France.

SOURCE: Cancer research, (1991 Oct 1) 51 (19) 5384-91.
Journal code: 2984705R. ISSN: 0008-5472.

PUB. COUNTRY: United States

DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199110

ENTRY DATE: Entered STN: 19920124
Last Updated on STN: 19970203
Entered Medline: 19911029

AB Vinorelbine is a new 5' nor Vinca alkaloid, active by i.v. route, in various types of cancer disease such as non-small cell lung cancer and advanced breast cancer. In order to evaluate the possibility of using this drug for local treatment of cancer, Vinorelbine-loaded bioresorbable polymeric implants were prepared using a copolymer of D,L-lactic and glycolic acids (PLA 37.5 GA 25). According to the manufacturing process, the 1.2-mm-diameter cylindrical rods obtained had a drug content of 1, 5, or 20% (w/w) and released half of their content within about 6 days in vitro. In vivo release in rats was slower, half of the drug being released after about 14 days. A dose-dependent antitumoral effect was observed in mice (solid P388 leukemia model) when implants were administered into or in contact with the tumor. At highest drug loads and when administered soon after tumor implantation, Vinorelbine implants were more effective than i.v. administration (median survival time of treated animals related to untreated controls, greater than 360 versus 188). In dogs, results of toxicity experiments revealed that administration of implants in vital organs must be avoided. On the contrary, s.c. administration was well tolerated. A transient local necrosis was observed in the days following implantation, but normal skin was recovered after about 10 weeks. Thus, a clinical trial was conducted on patients with head and neck cancer; implantation of 20% loaded polymeric implants into the tumor sites succeeded in 8 of 9 patients. The sole failure was attributed to the unusual hardness of the tumor tissue. Except for a local transient inflammatory reaction (easily treated with nonsteroidal antiinflammatory agents), no other sign of toxicity was detected, and patients tolerated the device well. Fourteen days after implantation, patients underwent their planned surgery, and the implants were recovered. Residual drug content varied from 24 to 55%. In all cases, there was a clearly delimited necrotic area around the implant, ranging from 0.5 to 3.5 cm in diameter. In the smallest tumors, necrosis was also observed in the normal tissue inside this area. These results invite further studies to evaluate such drug-loaded polymeric implants.

L10 ANSWER 15 OF 17 MEDLINE on STN

ACCESSION NUMBER: 90261572 MEDLINE

DOCUMENT NUMBER: PubMed ID: 1971474

TITLE: [The use of **bioresorbable implants**
(Biofix) in surgery. The indications, technic and initial
clinical results].
Die Verwendung bioresorbierbarer Implantate (Biofix) in der
Chirurgie. Indikation, Technik, erste klinische Ergebnisse.

AUTHOR: Steinmann R; Gerngross H; Hartel W

CORPORATE SOURCE: Chirurgische Abteilung, Bundeswehrkrankenhaus Ulm.

SOURCE: Aktuelle Traumatologie, (1990 Apr) 20 (2) 102-7.
Journal code: 0421405. ISSN: 0044-6173.

PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of

DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199006
ENTRY DATE: Entered STN: 19900720
Last Updated on STN: 19950206
Entered Medline: 19900627

AB Carrying out osteosyntheses with absorbable implants is a dream cherished by traumatologists for a long time. The absorbable rods available on the medical market comply within narrow ranges with the necessary conditions with regard to stability, absorption time and biocompatibility. In our clinical department 38 osteosyntheses with Biofix rods were performed. The complication rate amounted to 13%-5 abacterial disturbances of wound healing and secretions. The indications assured so far are limited to refixation of chondral and osteochondral fragments as well as the fixation of cortical-cancellous bone grafts.

L10 ANSWER 16 OF 17 MEDLINE on STN

ACCESSION NUMBER: 87098675 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3800332

TITLE: In vivo sustained release of cisplatin from
bioresorbable implants in mice.

AUTHOR: Hecquet B; Chabot F; Delatorre Gonzalez J C; Fournier C;
Hilali S; Cambier L; Depadt G; Vert M

SOURCE: Anticancer research, (1986 Sep-Oct) 6 (5) 1251-5.
Journal code: 8102988. ISSN: 0250-7005.

PUB. COUNTRY: Greece

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198702

ENTRY DATE: Entered STN: 19900302
Last Updated on STN: 19900302
Entered Medline: 19870206

AB Two kinds of cisplatin-containing implants were prepared from polylactic acid (type I) and from lactic acid-glycolic acid copolymer (type II). Type I implants were almost unaffected when inserted in the renal parenchyma of mice. In contrast, type II implants evolved clearly after in vivo implantation. X-ray pictures and platinum concentration measurements showed a continuous release of platinum over at least three weeks. The release resulted in high platinum concentrations in the kidney tissues and low plasma concentrations, compared to systemic injection. Type II implants seem adequate for further clinical trials of local treatment by cisplatin.

L10 ANSWER 17 OF 17 MEDLINE on STN

ACCESSION NUMBER: 87049329 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3778734

TITLE: Tissue developed around **bioresorbable implants**. Load-bearing versus histology.

AUTHOR: Richardson P D; Sasken H; Parhizgar A; Aebischer P; Panol G; Chiu T H; Galletti P M

SOURCE: ASAIO transactions / American Society for Artificial
Internal Organs, (1986 Jul-Sep) 32 (1) 342-5.
Journal code: 8611947. ISSN: 0889-7190.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198701

ENTRY DATE: Entered STN: 19900302
Last Updated on STN: 19980206
Entered Medline: 19870112

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=> s l1 and l10
L11      0 L1 AND L10
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=> s l1 and implant
L12      360 L1 AND IMPLANT
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